

REMARKS

This Response is submitted in reply to the Office Action dated October 31, 2007. In the Office Action of Oct. 31, 2007, claims 9-17 are rejected under 35 USC 112, 102 and 103. Claims 9-16 have been amended and claims 18-22 have been added. Claims 9 and 18 are in independent format. No new matter has been introduced as a result of these amendments. Please charge deposit account 02-1818 for all fees due in connection with this Response.

Responsive to the claim rejections and objections in the Office Action, Applicant amends claims to more clearly set forth the subject matter sought to be patented. Claim 9 is amended to include the limitation of “a first antenna branch”, “a second antenna branch”, and “a ground connection, arranged at an outer edge of the first antenna branch facing away from the first gap.” Support for this amendment can be found in column 28 of the originally-filed specification, where the specification states as follows:

“A ground connection G is provided at a free end FE of the first antenna branch Z1, to be precise at the outer edge of the first antenna branch Z1, facing away from the gap SP. An RF supply connection S for RF signals is provided on the first antenna branch Z1, at a distance from the ground point G. The distance between the ground point G and the RF supply connection S is optimized for one of two resonant frequencies of the PIFA antenna structure. The PIFA antenna arrangement illustrated in FIG. 1 is arranged at a distance H1 from a circuit board (not illustrated), on which contact is also made with the ground connection G and the RF supply connection S.”

Accordingly, the present amendments are supported in the original specification and contribute no new matter.

The Office Action rejected claims 9-17 under 35 U.S.C. §112 for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In particular, in claim 9 “the antenna branch” is amended to “the first antenna branch” which has a proper antecedent basis. In claim 15, “a further supply connection” is amended to “a further RF supply connection.” In light of the amendments made herein, Applicant respectfully traverses such rejection.

The Office Action rejected claims 9, 12-14 and 17 under 35 U.S.C. §102 as being anticipated by Pollasne et al. (US 2003/0201942). Applicant respectfully traverses this rejection on the ground that the teachings of the prior art reference do not disclose each and every element of the claimed invention.

A proper rejection of a claim under 35 U.S.C. §102 requires that a single prior art reference disclose each element of the claim. *See, e.g., W.L. Gore & Assoc., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303, 313 (Fed. Cir. 1983).

Anticipation requires that each and every element of the claimed invention be disclosed in a single prior art reference. *See e.g., In re Paulsen*, 30 F.3d 1475, 31 USPQ 2d 1671 (Fed. Cir. 1994); *In re Spada*, 911 F.2d 705, 15 USPQ 2d 1655 (Fed. Cir. 1990).

Independent claim 9, as currently amended, states:

9. A PIFA antenna arrangement for at least two mobile radio frequency bands having a desired separation from one another comprising:

a first antenna branch having a turning point between a first end and a second end of the first antenna branch;

a second antenna branch being alongside the first antenna branch and having a first gap with the first antenna branch, wherein the second antenna branch is in the form of a strip and connected at the first end of the first antenna branch to form a series connection;

a ground connection, **arranged at an outer edge of the first antenna branch facing away from the first gap;** and

an RF supply connection is **arranged at the outer edge of the second end of the first antenna branch where the ground connection is provided;**

wherein the widths of the first antenna branch and the second antenna branch, the lengths of the first antenna branch and the second antenna branch, and the gap between the first antenna branch and the second antenna branch are of such a size that the PIFA antenna structure has two resonant frequency bands that conform to the desired separation. (Emphasis added)

Independent claim 9 is allowable for at least the reason that Pollasne does not disclose, teach, or suggest the features that are highlighted in claim 9 above. More specifically, in Pollasne, Fig. 6A, there is no ground connection **arranged at an outer edge of the first antenna branch facing away from the first gap**. Additionally, in Pollasne, the feed line 118 (RF supply connection defined by Examiner) is not arranged at **the outer edge** of the second end of the first antenna branch **where the ground connection is provided**. Therefore, according to the current patent law, since the teachings of Pollasne does not disclose, teach, or suggest all the features in the claimed invention, the 102 rejection is properly overcome. Applicant respectfully submits that independent claim 9 is in condition for allowance and requests prompt allowance of independent claim 9.

Dependent claims 12-14 and 17 are believed to be allowable for at least the reason that these claims depend from allowable independent claim 9. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988).

Additionally and notwithstanding the foregoing allowability of these dependent claims, the dependent claims recite further features and/or combinations of features (as is apparent by examination of the claim itself) that are patentably distinct from the prior art of record. Hence, there are other reasons why these dependent claim are allowable.

Dependent claim 12 states as follows:

12. The PIFA antenna arrangement as claimed in claim 9, wherein **a distance between the ground connection and the RF supply connection is matched to a resonant frequency** of one of the two resonant frequency bands.
(Emphasis added)

Claim 12 should be allowable because Fig. 6A of Pollasne fails to disclose **“a distance between the ground connection and the RF supply connection is matched to a resonant frequency.”**

Dependent claim 13 states as follows:

13. The PIFA antenna arrangement as claimed in claim 9, wherein **the area ratio of the first antenna branch and the second antenna branch corresponds to a ratio between two resonant frequencies.**

Claim 13 should be allowable because Fig. 6C of Pollasne fails to disclose **“the area ratio of the first antenna branch and the second antenna branch corresponds to a ratio between two resonant frequencies.”**

Moreover, dependent claims 12-14 and 17 are believed to be allowable for at least the reason that these claims depend from allowable independent claim 9. Applicant respectfully submits that independent claim 12-14 and 17 are in condition for allowance and requests prompt allowance of dependent claims 10-11.

The Office Action rejected claims 10-11 under 35 U.S.C. §103 as being unpatentable over Pollasne et al. (US 2003/0201942). Applicant respectfully traverses this rejection on the ground that the teachings of the prior art reference do not suggest all features of the claimed invention to one of ordinary skill in the art.

In order for a claim to be properly rejected under 35 U.S.C. §103, the teachings of the prior art reference must suggest all features of the claimed invention to one of ordinary skill in the art.


See, e.g., In re Dow Chemical, 837 F.2d 469, 5 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1988); *In re Keller*, 642 F.2d 413, 208 U.S.P.Q. 871, 881 (C.C.P.A. 1981).

Dependent claims 10-11 are believed to be allowable for at least the reason that these claims depend from allowable independent claim 9. Therefore, according to the current patent law, since the teachings of Pollasne does not disclose, teach, or suggest all the features in the claimed invention, the 103 rejection is properly overcome. Applicant respectfully submits that independent claim 10-11 are in condition for allowance and requests prompt allowance of dependent claims 10-11.

In light of the foregoing amendments and for at least the reasons set forth above, Applicant respectfully submits that all objections and/or rejections have been traversed, rendered moot, and/or accommodated, and that the now pending claims 9-22 are in condition for allowance. Favorable reconsideration and allowance of the present application and all pending claims are hereby courteously requested.

Respectfully submitted,

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